

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022480**Date Inspected:** 08-Apr-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** An Qing Xiang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This Quality Assurance (QA) Inspector observed the following work in progress:

Bay 14

OBG Seg 14W:

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020BB-065 [Top anchorage plate (AP) 3016A to Vertical Shear Plate sub-assembly SA3450A, Complete Joint Penetration (CJP) weld in between panel point PP125 to PP126]. The welder is identified as 045246 and was observed welding in 4G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-P-2214-Tc-U4b-FCM-1.

The SMAW process on weld joint no: SEG3020BB-002 [Top anchorage plate (AP) 3013A to Vertical Shear Plate sub-assembly SA3442A, CJP weld in between panel point PP125 to PP126]. The welders are identified as 037932 and 067765 and were observed welding in 4G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-P-2214-Tc-U4b-FCM-1.

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The SMAW process on weld joint no: SEG3020BB-038 [Top anchorage plate (AP) 3015A to Vertical Shear Plate sub-assembly SA3447A, CJP weld in between panel point PP125 to PP126]. The welders are identified as 069841 and 066261 and were observed welding in 4G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-P-2214-Tc-U4b-FCM-1.

The SMAW process on weld joint no: SEG3020K-002 [Deck Panel diaphragm plate X4858C of Deck Panel (DP) 3172A to Floor Beam Sub Assembly SA3409A, CJP weld at PP127.3]. The welder is identified as 067520 and was observed welding in 2G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-P-2212-B-U2-FCM-1.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020BB-029 [Top anchorage plate (AP) 3014A to Vertical Shear Plate sub-assembly SA3446A, CJP weld in between panel point PP125 to PP126]. The welder is identified as 037748 and was observed welding in 4G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-P-2214-Tc-U4b-FCM-1.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020AA-014 [Deck Panel diaphragm plate X4882C of DP 3174A to Longitudinal Diaphragm (LD) 3048A, CJP weld in between PP127.5 to PP128]. The welder is identified as 066421 and was observed welding in 2G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-T-2232-ESAB.

The FCAW process on weld joint no: DP3173-001-322 [Floor Beam diaphragm plate X4858B to deck plate diaphragm plate 4974C of DP 3173A, CJP weld at PP127.3]. The welder is identified as 066239 and was observed welding in 3G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-T-2233-ESAB.

The FCAW process on weld joint no: SEG3020W-013 [Deck Panel diaphragm plate X4812A of DP 3177A to flange plate of FB3317A, CJP weld at PP125]. The welder is identified as 067949 and was observed welding in 2G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-T-2232-ESAB.

The FCAW process on weld joint no: SEG3020T-281 [Deck Panel diaphragm plate X4813D of DP 3177A to top anchorage plate AP3022A, CJP weld at PP125.5]. The welder is identified as 066881 and was observed welding in 2G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-T-2232-ESAB.

The FCAW process on weld joint no: SEG3020K-004 [Deck Panel diaphragm plate X4858B of DP 3173A to flange of floor beam sub assembly SA3410, CJP weld at PP127.3]. The welder is identified as 069469 and was observed welding in 2G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: B-T-2232-ESAB.

During random in process visual inspection this QA Inspector observed that ZPMC NDT personnel performed Ultrasonic Testing (UT) on the weld joints and found several numbers of non conforming UT indications. These indications were marked on the weld joints by ZPMC NDT personnel. The weld designations are identified as

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follows.

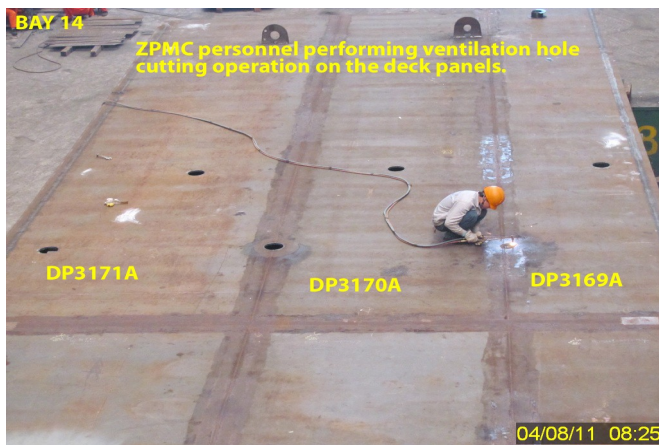
SEG3020AQ-025; ZPMC found 20 no's of UT rejectable indications.

SEG3020BB-074; ZPMC found 03 no's of UT rejectable indications.

SEG3020BB-020; ZPMC found 01 no of UT rejectable indication.

During random in process visual inspection this QA Inspector observed that ZPMC personnel was performing ventilation hole cutting operation on deck panels DP3169A/DP3170A/DP3171A. Attached photograph provide additional details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang : 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Umesh	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer
